



HOUSING VISION

Independent Assessment of Housing Needs and Strategic Housing Market Assessment Update: St Albans City and District Council

**Response to
Supplementary Questions:
Final**

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St Albans City and District Council

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**St Albans Independent Assessment of Housing Needs and SHMA
Addendum: response to supplementary questions relating to the 2012-
based Sub-national Population and Household Projections**

1.1 This paper addresses further issues raised by the Council as follows.

1. Unattributed differences in population estimates, 2001-2011

1.2 Paragraphs 5.12 and 5.13 of the Main SHMA Report drew attention to the issue arising from difficulties in fully accounting for the differences in population as measured by the 2001 and 2011 Censuses. In the years between Censuses, the Office for National Statistics (ONS) calculates annual population estimates for local authorities in England and Wales. The updates take account of births, deaths, ageing and migration, both internal (within the UK) and international.

1.3 The 2011 Census indicated that the population of the country was greater than had been expected. This was also the case in many local authorities including St Albans. After further analysis, in April 2013, ONS issued revised its population estimates for the period 2002-2010. Table 1.1 (based on Table 5.1 in the main report) shows revised estimates of the contributions of different factors to population change in St Albans between 2001 and 2011; natural change is the difference between births and deaths

Table 1.1: Components of Population Change 2001-2011, St Albans

Component	Natural Change	UK Migration	International	Unattributed	Total*
Total gains/losses	+7,941	+2,747	-851	+2,281	+12,080
Annual average	+794	+275	-85	+228	+1,208

(Source: ONS Mid Year Estimates revised in light of 2001 and 2011 Censuses) includes asylum seeker adjustments, prisoners, armed forces and other factors (total minus 38 over decade).*

1.4 Even after the revision, ONS has not fully accounted for the discrepancy between the 2011 Census figure and its previous population estimates. The difference between the population of St Albans in the Census years 2001 and 2011 is 12,080; of this, 19% (2,281) cannot be attributed to a specific growth factor. Doubt remains about the extent to which this difference results from one or more of:

- errors and statistical variation in the 2001 Census estimates;
- errors and statistical variation in the 2011 Census estimates; and

- errors in the measurement of population change between the Censuses.
- 1.5 Although Censuses are the most robust sources of population data, their results should not be regarded as precisely accurate. A proportion of households do not return their Census forms, and the data supplied is not always accurate: for example not all members of a household may be included. Recent Censuses include a degree of estimation to allow for non-response. The procedures in 2011 have been more successful than in 2001 and are considered to provide a more reliable estimate of the population; in contrast the 2001 Census was widely seen to have underestimated the population, at least in some areas. If the 2001 population estimates are too low, the apparent change between 2001 and 2011 may be exaggerated.
- 1.6 The population estimation process is based partly on the results of a sample carried out after the main Census. Sampling inevitably introduces a degree of uncertainty over the actual population figure; the true result might lie within a range around the published figure.
- 1.7 Local authorities are grouped to provide a sample that is large enough to provide reliable results; there is a possibility of error in the allocation of the adjustment for non-response among local authorities in the group.
- 1.8 Thus some of the unexpected difference between the population statistics for 2001 and 2011 may arise from the factors outlined above, rather than from inaccurate estimation of change during the intercensal period 2001-2011.
- 1.9 ONS' 2012-based sub-national population projections do not contain any adjustment for unattributed difference or change (UPC). ONS state *"... research concluded that an adjustment would only be made if it could be demonstrated that UPC measures a bias in the trend data that will continue in the future. In addition, it is also unclear what proportion of the UPC is due to sampling error in the 2001 Census, adjustments made to the population estimates after the 2001 Census, sampling error in the 2011 Census or error in the intercensal components - so methodologically, this would be difficult to adjust for.*

The UPC is unlikely to be seen in continuing subnational trends because:

- *if it is due to either the 2001 Census or 2011 Census, then the components of population change will be unaffected, and if it is due to international migration, it is likely that the biggest impacts will be seen earlier in the decade and will have less of an impact in the later years,*

because of improvements introduced to migration estimates in the majority of these years.”

(Source: Questions and Answers: 2012-based Subnational Population Projections, ONS May 2014, website
<http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2012-based-projections/index.html>)

- 1.10 Nevertheless, doubts remained over the accuracy of the measurement of components of population change, particularly international migration, the major growth driver in recent years. A review of the quality of the national estimates of international migration has now been carried out. Estimates of net international migration into the UK during the years 2001-2011 have been revised upwards. The latest data is in ONS' Migration Statistics Quarterly Report: (http://www.ons.gov.uk/ons/dcp171778_404613.pdf).
- 1.11 The revisions are greatest for the years 2004 to 2008, a period in which migration from the EU increased rapidly. The monitoring of migration was concentrated at the time at principal international airports, but migrants from the EU8 countries were travelling on the growing number of routes connecting their countries with the UK. ONS is confident that changes in monitoring since 2008 have greatly increased the quality of data (<http://www.ons.gov.uk/ons/rel/migration1/long-term-international-migration/quality-of-long-term-international-migration-estimates-from-2001-to-2011/sty-quality-of-ltim.html>).
- 1.12 The 2012-based projections were informed by trend data that has now been shown to underestimate net immigration into the UK during the period 2004-2008. Revised national projections, on a 2014 base will be issued in Autumn 2015. An upward revision of national assumptions about net immigration may be expected,
- to reflect upward revisions of earlier data, although the years in which errors were greatest are now receding into the past.
 - net migration into the UK showed a great increase in 2014, almost reaching the previous peak figure recorded in 2004-5 (Migration Statistics Quarterly Report, May 2015 , website http://www.ons.gov.uk/ons/dcp171778_404613.pdf)
- 1.13 The implications for individual local authorities are less easy to predict. There is evidence that immigration into St Albans has been at lower levels in recent years, after the peak in 2005-6. (*Figure 2.2, Independent Assessment of Housing Needs and SHMA: Update Report for St Albans City and District Council, May 2015 draft*). Net international migration into St Albans in 2012-13 was below the level

projected in the 2012-based projections. Estimates for 2013-14 will be published later in June 2015.

- 1.14 The projections and forecasts prepared for the SHMA included scenarios that assumed that the unaccounted population difference was due to underestimation of migration gains: the Migration-led High-X and Migration-led-High (paragraphs 5.55 to 5.56 in main SHMA report). Table 6 in the report “Independent Assessment of Housing Needs and SHMA Addendum: the implications of 2012-based Sub-national Population Projections” compares these scenarios against the 2012-based sub-national projections. Population growth 2011-2031 in the Migration-led High X scenario is 26,300, compared with 27,000 in the 2012-based SNPP; the Migration-led High scenario shows greater growth of 28,800.
- 1.15 Having reviewed the 2012 SNPP and the issue of unattributed population difference, it is contended that the scenarios prepared for the SHMA continue to provide a reasonable range of possible future trajectories of population growth and change.

2. Household trends: introduction

- 2.1 The Council has looked at a range of data on population and household change from CLG’s published tables for the 2012-based projections. This has raised a number of queries about the relationship between population and household change, and the reasons why the results of the 2012-based projections differ from the 2011-based. Hopefully many of these are addressed in the Implications Report. The sections below look at some of the detailed points raised.
- 2.2 Growth in the population and particularly the adult population is a major factor in the growing number of households. However, the relationship between the total population and the number of households is not straightforward and will vary between areas and over time because of
- **Age:** The likelihood of someone being ‘the household representative’ varies significantly by age (figure 2 in Independent Assessment of Housing Needs and SHMA Addendum: the implications of 2012-based Subnational Population Projections)
 - **Gender:** The likelihood of someone being ‘the household representative’ varies by gender (see also figure 2, *ibid*)
 - **Relationship:** The likelihood of being ‘the household representative’ varies significantly by relationship status.

- 2.3 In the CLG projections, household representative rates are calculated for each combination of age, gender and relationship by dividing the number of household representatives in a group by the population of that group (discounting those who live in institutions). Trends in past changes in rates, going back to 1971, are calculated and applied to the future projected population in each age, gender and relationship group. The projected future number of households will be sensitive to changes in any of the above, and it is difficult to disentangle the effect of one factor from another.
- 2.4 Table 5 in the Addendum breaks down the projected household change in the 2012-based projections into population, household and interaction effects. Of the projected 12,700 growth, some 11,800 is down to growth and change in the population. The remainder is due, directly or indirectly, to household formation changes
- 2.5 Hence household representative rates contribute a fairly small, but nevertheless important, share of overall growth.

3. Why do the 2012 population and household projections differ from the 2011 projections?

- 3.1 Table 3.1 shows the projected population and household population 2011-2021 arising from the 2 sets of projections. The 2012 projections show greater household and population growth; however, the increment in household growth (857) is greater than the increment in population growth (706). As noted earlier it is difficult to untangle the reasons for this.

Table 3.1: Projected change in households and household population 2011-2021

Gender	Households			Household Population		
	CLG 2011	CLG 2012	Difference	CLG 2011	CLG 2012	Difference
Male	+3,404	+4,047	+643	+6,766	+6,877	+111
Female	+1,914	+2,128	+214	+6,499	+7,094	+595
Total	+5,318	+6,175	+857	+13,265	+13,971	+706

- 3.2 The gender distribution of change is different in the two projections. For males the difference in population growth is fairly modest (111) but the 2012-based projections show much higher household growth – by 643. Conversely, female population growth is much higher in the 2012-based projections, but the difference in household growth is smaller.

Age differences

- 3.3 Part of the reason for the different changes in households and population in the two sets of projections can be found in the division between the child and adult population. The number of children has no direct effect on the projection of household numbers. Table 3.2 repeats Table 3.1, but the population is now restricted to those aged 15 and above. Growth in the adult population is noticeable greater in the 2012-based projections than it is in the 2011-based set. The increment to household growth (857) is smaller than the increment to adult population growth (1,223); this contrast with the picture shown by table 3.1, based on total population.

Table 3.2: Projected change in households and adult household population 2011-2021

Gender	Households			Adults in Households		
	CLG 2011	CLG 2012	Difference	CLG 2011	CLG 2012	Difference
Male	+3,404	+4,047	+643	+3,814	+4,217	+403
Female	+1,914	+2,128	+214	+3,913	+4,733	+820
Total	+5,318	+6,175	+857	+7,727	+8,950	+1,223

- 3.4 The household projections are calculated using 5-year age groups (e.g. 20-24). At this finer level of detail, the underlying population projections produce different age distributions of population change. This affects household numbers as household representative rates vary by age and gender.
- 3.5 Apart from the underlying population differences, the two projections because the 2012-based projections make use of 2011 Census information about relationship and household status that was not available when the 2011-based projections were prepared. However, the 2012-based projections issued in February 2015 should not be regarded as a full and final version. Important Census data was still not available, and there were unresolved technical questions raised by some additional data that had been obtained (see final section)

Relationship status

- 3.6 The 2012-based projections are informed by additional Census information on relationship status. One effect of this is to lead to projected greater growth in the number of couples and reduced growth in the number of single people. By convention, the projections assume that the male is the household representative in couple relationships; this partly explains the shift to greater growth in male household

representatives. When comparing the household growth 2011-2021 in the 2011 and 2012 based projections for St Albans, most of the extra increment to household growth consists of couple households.

- 3.7 The additional information used is about the relationship status of the population. The 2012-based national projections also make use of summary results about relationship in the calculation of trends in household representative rates.
- 3.8 However, so far, it has not been possible to make full use of 2011 Census data to revise the relationship status of household representatives by age and gender.

Household representative rates

- 3.9 Most of the greater growth in households in the 2012 projections stems from differences in the household representative rates in the 2011 and 2012-based projections. This results in part from some additional Census data used to inform the 2012-based projections, although the revision is incomplete (see above).
- 3.10 Trends by age, gender and relationship are calculated for the country and its 'regions'. The regional results are applied to local authority populations but are constrained to the 2011 Census 'aggregate representative rate' for the area. For the 2011-based projection the aggregate rate was calculated by dividing the total household population by the number of households from the Census (as in Table 3.1). For the 2012-based projections it was possible to recalculate the aggregate rate using the adult population as the denominator (See Table 3.2). The adult population is more relevant to household formation, so this would seem to be an improvement. This change will have different impacts in different local authorities.
- 3.11 Table 6 in the Addendum shows the effect of applying the 2008, 2011 and 2012 rates to the same 2012-based population projection for the shorter period 2011-2021 (the 2011 projections only run to 2021). The growth varies from 5,300 (2011) to 6,900 (2008), with the 2012 projection in the middle at 6,200.

4. Household Trends: is St Albans different from nearby areas?

- 4.1 The following table attempts to show how St Albans might grow if household rates from nearby authorities were applied to St Albans. The change varies from 12, 672 to 12,770, which is a fairly narrow range; the actual CLG projected change is 12,735.

Table 4.1: Applying Household rates from other areas to St Albans 2011-2031

Local authority	2011	2031	Change
Dacorum	56,988	69,758	12,770
East Herts	56,937	69,690	12,753
Welwyn Hatfield	56,968	69,677	12,709
Watford	56,763	69,462	12,699
Hertsmere	55,504	68,177	12,672
St Albans	56,354	69,089	12,735

4.2 It is noticeable that the number of households at each date varies to a greater extent; in 2011 from 55,504 (Hertsmere rate) to 56,988 (Dacorum).

4.3 The effects of variations in household representative rates were explored in the main SHMA scenarios; two household assumptions (A and B) were applied to each of the demographic scenarios.

5. Technical Issues

5.1 The 2012-based CLG projections use household and relationship data that was not available for the 2011 set, but cannot be regarded as a full revision. The methodology report states ‘... as with the 2011-interim household projections, only partial information is available from the published Census 2011 data to derive household representative rates for 2011’. (Household Projections 2012-based: Methodological Report, CLG, February 2015). The lack of a conclusive analysis of household trends during the period 2001-2011 is unfortunate, particularly as the issue of the future trajectories of household formation is a matter of dispute at Local Plan Examinations

5.2 Furthermore, at the time of writing, the breakdown to the more useful Stage 2 household types was not available, although publication is promised in the near future. The Stage 2 data provides information which is very useful to a full analysis of housing requirements.

5.3 Those pressing for greater development argue that the 2011 and 2012 projections of household trends are unduly influenced by the recession. This issue has been considered carefully by Ludi Simpson, Professor of Population Studies at Manchester University (‘Whither Household Projections?’ Town and Country Planning, December 2014). His conclusion is:

“The societal changes that created smaller households in Britain since the 1960s have now affected 50 years of those reaching adulthood. However, the experience of the past two decades, and not just the

economic crisis of the late 2000s does suggest that we are not in a position to expect further increases in household formation rates of the same kind. Household size in England cannot continue to reduce indefinitely, although it has not reached a limit and is not as low as elsewhere in Northern Europe. The future in the UK is likely to be a continuation of precarious household formation. It will probably be lower than once projected and carry more uncertainty, until further structural shifts occur.”